



**UNITED STATES DEPARTMENT OF COMMERCE  
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/797,553	01/24/97	HELLBAUM R	LAR-15348-2

AS41/1215  
NASA LANGLEY RESEARCH CENTER  
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EXAMINER
LURIN, F

ART UNIT	PAPER NUMBER
1301	

DATE MAILED: 12/15/97

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

08/797,553

Applicant(s)

Hellbaum et al

Examiner

Francis J. Lorin

Group Art Unit

1301



☒ Responsive to communication(s) filed on Aug 22, 1997

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-8 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-8 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 1301

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 3-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Saito et al (U.S. Patent No. 5,042,493, previously cited).

The reference teaches a method of bonding a piezoelectric layer (corresponding to applicant's "ferroelectric layer" to a backing layer (corresponding to applicant's prestress layer) on a mold, 11, see figures 4 and 6. The piezoelectric layer includes electrodes, see column 3, lines 43-47, column 4, lines 34-53 and column 6, line 14- column 7, line 25.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al (U.S. Patent No. 5,042,493, cited above).

Art Unit: 1301

As to the recitations in dependent claims 2 and 7-8 regarding various materials, e.g., a reinforcing material, a piezoelectric material and a composite, these materials are considered well known in the art of making piezoelectric devices and would have been obvious to one of ordinary skill in the art and would have been dependant upon commercially available materials.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Francis J. Lorin whose telephone number is (703) 308-2061.

Any inquiry of a general nature can be directed to the Group receptionist at (703) 308-0651.

The FAX number for Group art unit 1301 is (703) 305-7115.



FRANCIS J. LORIN  
PATENT EXAMINER  
ART UNIT 1301

Francis J. Lorin  
November 24, 1997